



Pyramid Way and McCarran Boulevard
Intersection Improvement Project

ENVIRONMENTAL IMPACT STATEMENT

RTC Project No. 73299
Federal Project No. CM-0191-(063)

VISUAL IMPACT ASSESSMENT

**Regional Transportation Commission of Washoe County,
Federal Highway Administration,
and
Nevada Department of Transportation**

PARSONS

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1.0 INTRODUCTION AND PROJECT SETTING

This report provides an analysis of the effects to visual resources related to the proposed Pyramid Way and McCarran Boulevard Intersection Improvement Project.

1.1 Overall Project Setting

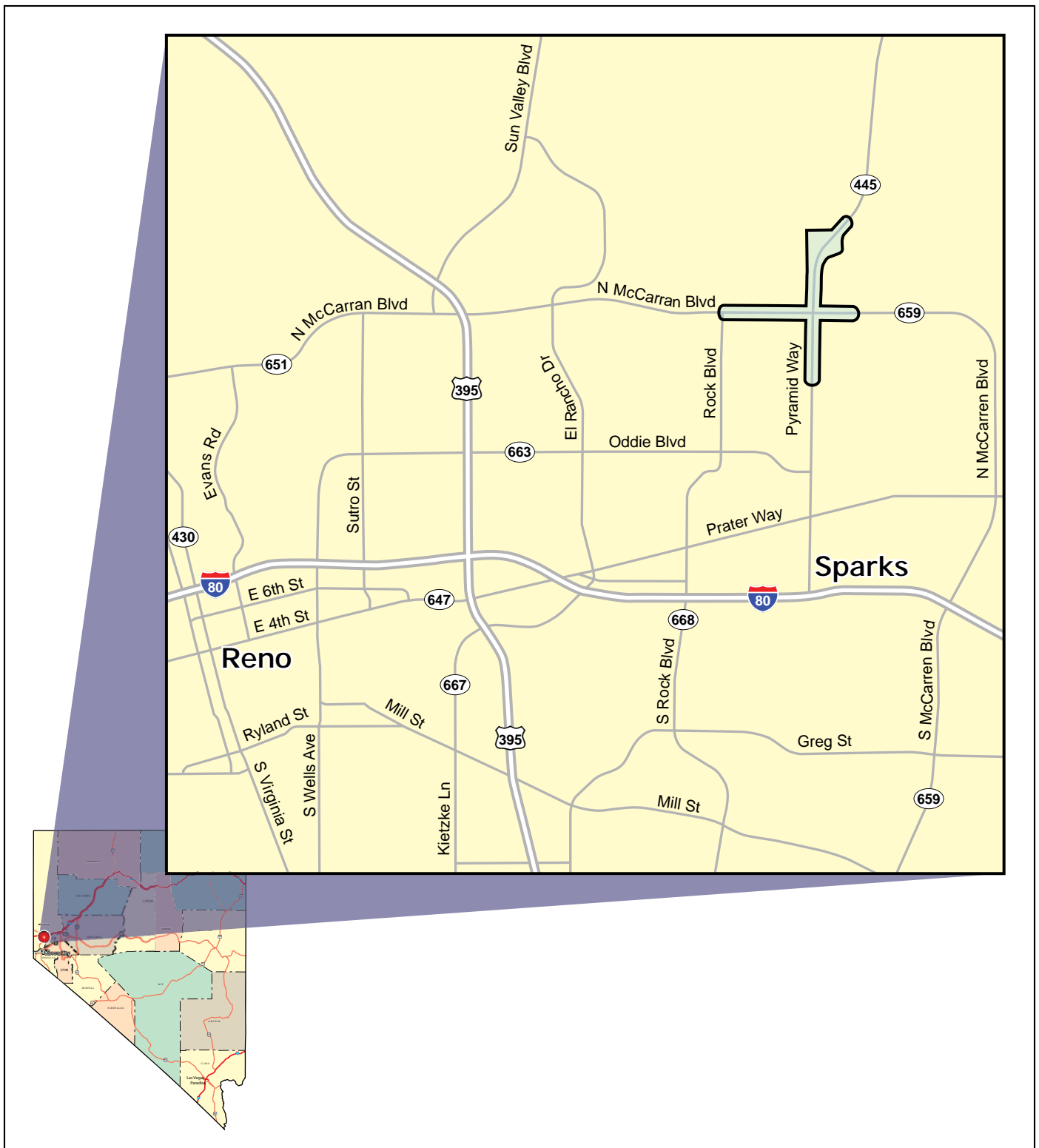
The Regional Transportation Commission of Washoe County (RTC), in cooperation with the Nevada Department of Transportation (NDOT) and the Federal Highway Administration (FHWA), is studying operational improvements to the intersection of North McCarran Boulevard (State Route 659) and Pyramid Way (State Route 445) in Sparks, Washoe County, Nevada (see Figure 1).

The project area is primarily single-family residential in land use, although two other significant land uses exist within the project area: Sparks Mercantile Center, which is a large commercial shopping center located in the southwestern corner of the intersection, and the Immaculate Conception Catholic Church in the northwest quadrant. Additional commercial land uses can be found along Pyramid Way north of the intersection, in the areas south of Queen Way.

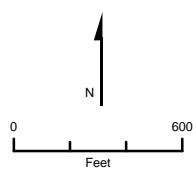
1.2 Project Description

The Regional Transportation Commission of Washoe County (RTC), in cooperation with the Nevada Department of Transportation (NDOT) and the Federal Highway Administration (FHWA), is studying operational improvements to the intersection of North McCarran Boulevard (State Route 659) and Pyramid Way (State Route 445) in Sparks, Washoe County, Nevada.

McCarran Boulevard and Pyramid Way are two through lanes in each direction. The proposed improvements would widen Pyramid Way to three lanes in each direction from Queen Way to Tyler Way. McCarran Boulevard would remain two lanes in each direction. Operational improvements at the intersection consist of additional turning lanes: eastbound McCarran Boulevard to northbound Pyramid Way; westbound McCarran Boulevard to southbound Pyramid Way; westbound McCarran Boulevard to northbound Pyramid Way; northbound Pyramid Way to westbound McCarran Boulevard; and southbound Pyramid Way to westbound McCarran Boulevard. The Pyramid Way and Queen Way intersection would also be reconfigured to improve access to the surrounding neighborhoods. Widening of Pyramid Way and McCarran Boulevard would occur on the east and south sides, respectively, to accommodate these improvements. To accommodate the additional turning lanes on McCarran Boulevard at Pyramid Way, widening would be required on the north and south sides of McCarran Boulevard between Pyramid Way and 4th Street.



Source: Parsons 2011



LEGEND

 Project Limits



*Pyramid Way and McCarran Boulevard
Intersection Improvement Project*

Project Location

Figure 1

1.3 Regulatory Setting

The regulatory setting describes any applicable state and local statutes, reports, and guidelines that may influence the visual environment of the community. These help provide a window into a community's commitment and/or desire to influence their visual environment.

The National Environmental Policy Act (NEPA) of 1969 and Council on Environmental Quality (CEQ) regulations to implement NEPA both discuss visual impacts under the heading of aesthetics. These regulations identify aesthetics as one of the elements or factors in the human environment that must be considered in determining the effects of a project. Furthermore, Title 23, United States Code (U.S.C.) 109(h) cites "aesthetic values" as a matter that must be fully considered in developing a project.

1.3.1 Nevada Department of Transportation

Since 2000, NDOT has developed many planning documents/design guidelines for highway corridors under their jurisdiction. Pyramid Way (SR 445) and McCarran Boulevard (SR 659) are state highways. In addition to the documents discussed below, NDOT has also developed many Landscape and Aesthetic Corridor Plans. These include the US 395, West US 50, US 28, SR 207 and SR 431 plan and another for the urban areas of I-80 within Washoe County; however, neither of these documents specifically addresses the Pyramid Way or McCarran Boulevard sections of roadway.

Aesthetic Alternatives for NDOT Design Standards: This document contains a library of aesthetic alternatives to existing NDOT practices. The document is considered a working resource that promotes knowledge of practical information needed to implement aesthetic alternatives to conventional designs. Among the topics covered are:

- Bridge Aesthetics;
- Sound and Retaining Wall Aesthetics;
- Drainage Channels;
- Rock Cuts;
- Rock Mulch;
- Lighting; and
- Millings.

Pattern and Palette of Place: A Landscape and Aesthetics Master Plan for the Nevada State Highway System: This document serves as the Master Plan Document for the State and establishes the goals of the landscape and aesthetic program for the Nevada State Highway system.

Scenic Routes: SR 445 (Pyramid Highway) is a designated Scenic Route; however, the designation begins north of the project area, near the Pyramid Lake Paiute Indian Tribe Boundary and heads north. No Scenic Routes are found within the project area.

1.3.2 City of Sparks

The project area is within the city of Sparks, just south of the West Pyramid Planning Area, which has a developed land use plan and goals; however, the project area does not currently have a similar developed planning document. For the project area, the Sparks Municipal Code and Design Standards would apply to local development. Although this State-owned route is not under jurisdiction of the local planning authorities, the following planning policies and guidelines are indicators of the general level of community sensitivity regarding the aesthetic character of the region and of the project area.

City of Sparks Municipal Code: The Municipal Code establishes the ordinance to support the goals and policies established in the General Plan. Among other elements, the code establishes a Site Plan Review with the purpose of determining whether the proposed use, building, structure addition, or change to any building will conform to City requirements. The Site Plan Review also ensures the development of aesthetically acceptable and well-ordered community. The Municipal Code also establishes the requirements for resource-efficient landscaping.

Design Standard Manual: The City of Sparks has developed a Design Manual to support the zoning codes. The manual contains design standards that are “qualitative” rather than “quantitative” Goals of the Design Standards Manual are:

- Provide standards for the orderly development of the City and the promotion of high-quality development;
- Implement the goals, objectives, and policies of the Master Plan related to quality development and neighborhood compatibility;
- Maintain and protect the value of property; and
- Maintain a high quality of life without causing unnecessary high public or private costs for development or unduly restricting private enterprise, initiative, or innovation in design.

1.3.3 Summary of Regulatory Setting

The sum of the regulatory environment indicates that the State, in particular, has placed a high emphasis on the aesthetics of its corridors. This would indicate that in evaluating the potential changes to the existing visual environment, a relatively high level of sensitivity could be expected.

1.4 Methodology

The visual effects of changes in the viewshed as a result of the Pyramid Way/McCarran Boulevard Intersection Improvement Project are based on site visits, review of local planning documents, project drawings, photographs of the project area, and plans and typical cross-section illustrations of the proposed project. For this assessment, the viewshed analyzed extends 0.25-mile from the alignment in undeveloped and open areas. Within urban areas, the viewshed is confined by the buildings that border the alignment.

This visual assessment was prepared consistent with the methodologies established by FHWA’s Visual Impact Assessment for Highway Projects (1981). This methodology was selected because it is customarily used along highway corridors. Typical views, called key viewpoints, are selected for the project area to represent the views to/from the proposed project.

Existing visual quality from the viewpoints is judged by three criteria: vividness, intactness, and unity. Descriptions for the three criteria are:

- **Vividness:** The memorability of the landscape components as they combine to form striking or distinctive patterns.
- **Intactness:** The integrity of visual order in the view and its freedom from visual encroachment.
- **Unity:** The visual coherence and composition of the landscape viewed to form a harmonious visual pattern.

These criteria provide a method for describing the form, line, color, and texture of the components found within a view. As in all things aesthetic, “beauty is in the eye of the beholder.” Therefore, there is a subjective component to this or any visual evaluation; however, as outlined in the FHWA methods, the use of these descriptors allows for a basis for understanding the evaluator’s rationale behind a visual quality determination. It is important to note that visual character terms are descriptive and nonevaluative, meaning that they are based on defined attributes that are neither good nor bad by themselves. Changes in visual character cannot be described as having good or bad attributes until compared with viewer responses to the change.

To address the requirements identified in the methodology, the following seven steps were performed to assess the visual impacts of the proposed project:

- Define the project setting
- Identify the regulatory setting of the project area
- Identify key views for visual assessment
- Analyze existing visual resources and viewer response
- Depict the visual appearance of proposed project
- Assess the visual impacts of the proposed project
- Propose methods to mitigate adverse visual impacts

Visual sensitivity is based on the number and types of users, viewers, or sensitive receptors typically found in the study area. Generally, viewers in parks and residential areas are assumed to be the most sensitive to visual and aesthetic impacts, and viewers in industrial areas would be the least sensitive. The level of sensitivity for viewers from an adjacent roadway varies depending on the number of viewers, the road’s landscape context, and whether the road has official scenic status.

Visual quality is evaluated based on consideration of landscape qualities related to natural and/or man-made features, specifically:

- Natural features, including topography, water courses, rock outcrops, and natural vegetation;
- The positive and negative effects of man-made alterations to the environment and built structures on visual quality; and
- Visual composition, including an assessment of the complexity and vividness of patterns that exist in the landscape.

The visual impact of the proposed project is determined by assessing the visual resource change due to the project and predicting viewer response to that change. Visual resource change is the total change in visual character and visual quality. The first step in determining visual resource change is to assess the compatibility of the proposed project with the existing visual character of the landscape. The second step is to compare the visual quality of the existing resources with the projected visual quality after the project is constructed. Viewer response to the changes is the sum of viewer exposure and viewer sensitivity to the project.. The resulting level of visual impact is determined by combining the severity of resource change with the degree to which people are likely to oppose the change.

For projects that do not create a significant impact on existing visual character or quality, a more nuanced approach categorizes impact levels as low, moderately low, moderate, moderately high, and high based on the following descriptions:

- Low (L): Low negative change to existing visual resources and low viewer response to that change. May or may not require mitigation.
- Moderately Low (ML): Low negative change to the visual resource with a moderate viewer response, or moderate negative change to the resource with a low viewer response. Impact can be mitigated using conventional methods.
- Moderate (M): Moderate negative change to the visual resource with moderate viewer response. Impact can be mitigated within 5 years using conventional practices.
- Moderately High (MH): Moderate negative change in the visual resource with high viewer response or high negative change with a moderate viewer response. Extraordinary mitigation practices may be required. Landscape treatment required will generally take longer than 5 years to mitigate.
- High (H): High level of negative change in character or a high level of viewer response to the change such that extraordinary architectural design and landscape treatments may not mitigate impacts below a high level. An alternative project design may be required to avoid high negative impacts.

1.4.1 Methodology for Key View Analysis

For the impact analysis table, the numeric analysis rating of 1 to 5 corresponds with the following values:

- High = 4.51 to 5.00
- Moderately High = 3.51 to 4.50
- Moderate = 2.51 to 3.50
- Moderately Low = 1.51 to 2.50
- Low = 0 to 1.50

A number was assigned to each of the three visual quality traits (i.e., vividness, intactness, and unity) and each of the four visual character traits (i.e., scale, diversity, continuity, and dominance) for both the existing and proposed views. The ratings in each category were added up and divided by the number of traits in each category. There is no weighting of any category over any other. For example:

- $(\text{Vividness} + \text{Intactness} + \text{Unity})/3 = \text{Visual Quality Rating}$
- $(\text{Scale} + \text{Diversity} + \text{Continuity} + \text{Dominance})/4 = \text{Visual Character Rating}$

From these calculations, the percentage of change anticipated in the view was then calculated by finding the difference between existing and proposed view and then dividing that number by the initial rating figure. So for example:

- $(\text{Existing Visual Quality Rating} - \text{Proposed Visual Quality Rating})/\text{Existing Visual Quality Rating} = \text{Percent Change}$

The resulting percent change corresponds to the following:

- 0% to 10% = Low degree of change
- 10% to 20% = Moderately Low degree of change
- 20% to 30% = Moderate degree of change
- 30% to 40% = Moderately High degree of change
- Above 40% = High degree of change

For the viewer responses shown in the individual analysis summary tables, the existing and proposed would be the same because the viewers themselves do not change, only the stimulus changes. The anticipated changes to character and quality, along with the anticipated viewer response and sensitivity, follow the Low – Moderate – High rating designations from above. These are averaged between each category, with the higher rating prevailing to determine the resource change and overall anticipated visual impact within the key viewpoint.

The last section of this chapter is an overall summary table that pulls the information from the individual tables forward for ease of analysis of the anticipated visual impacts of the project.

2.0 EXISTING VISUAL ENVIRONMENT AND VIEWER GROUPS

For clarity, the project area was divided into the intersection quadrants, and typical views within each of these were documented. These can be seen in Figures 2 through 5.

2.1 Existing Visual Character and Quality

Description of the existing visual character/quality for the corridor is divided by the four intersection quadrants. This allows for a more in-depth discussion of the visual environment of the project area. The description includes a figure that illustrates, through photographs, typical views within each quadrant. Key viewpoints, used for creating simulated images of anticipated changes within each unit (see Chapter 4), are identified with a star.

For the discussion of visual quality associated with each landscape unit described below, it is important to remember that these are general evaluations for the unit as a whole. Specific locations within the unit may have higher or lower visual quality than average. In the discussion of key viewpoints in Chapter 4, visual quality is assessed for specific views, and these may differ from the average, or general, visual quality rating assigned below because that rating only considers a specific location within the landscape unit.

2.2 Predicting Viewer Response

Viewer response is based on two elements – viewer sensitivity and viewer exposure. These elements combine to form a method of predicting how the public might react to visual changes that result from the proposed improvements.

2.2.1 Existing Viewer Sensitivity

Viewer sensitivity can be defined as the viewer's concern for scenic quality and his response to change in the visual environment that creates the view. Local values and goals may place greater significance on certain landscape components or locations that might appear unremarkable to an outside observer. Even when the existing appearance of a project site is uninspiring, a community may still object to projects that fall short of visual goals. Designers can learn about these special resources and community aspirations for visual quality through citizen participation procedures, as well as from local publications and planning documents.

2.2.2 Existing Viewer Exposure

Viewer exposure is typically assessed by considering the number of viewers exposed to the view, the type of viewer activity associated with the view, the duration of their view, the speed at which the viewer moves through the environment, and the position of the viewer. In general, people are active receptors of visual information and seek understanding from experiencing their surroundings; therefore, high viewer exposure heightens the importance of early consideration of urban design, public art, and architecture and their roles in managing the visual resource effects of a project.

2.3 Existing Viewer Groups, Exposure, and Awareness

Viewers are grouped by how they may view the project area. They are by no means a uniform grouping of individuals, but rather groupings of persons who view the project from a certain standpoint. It is possible

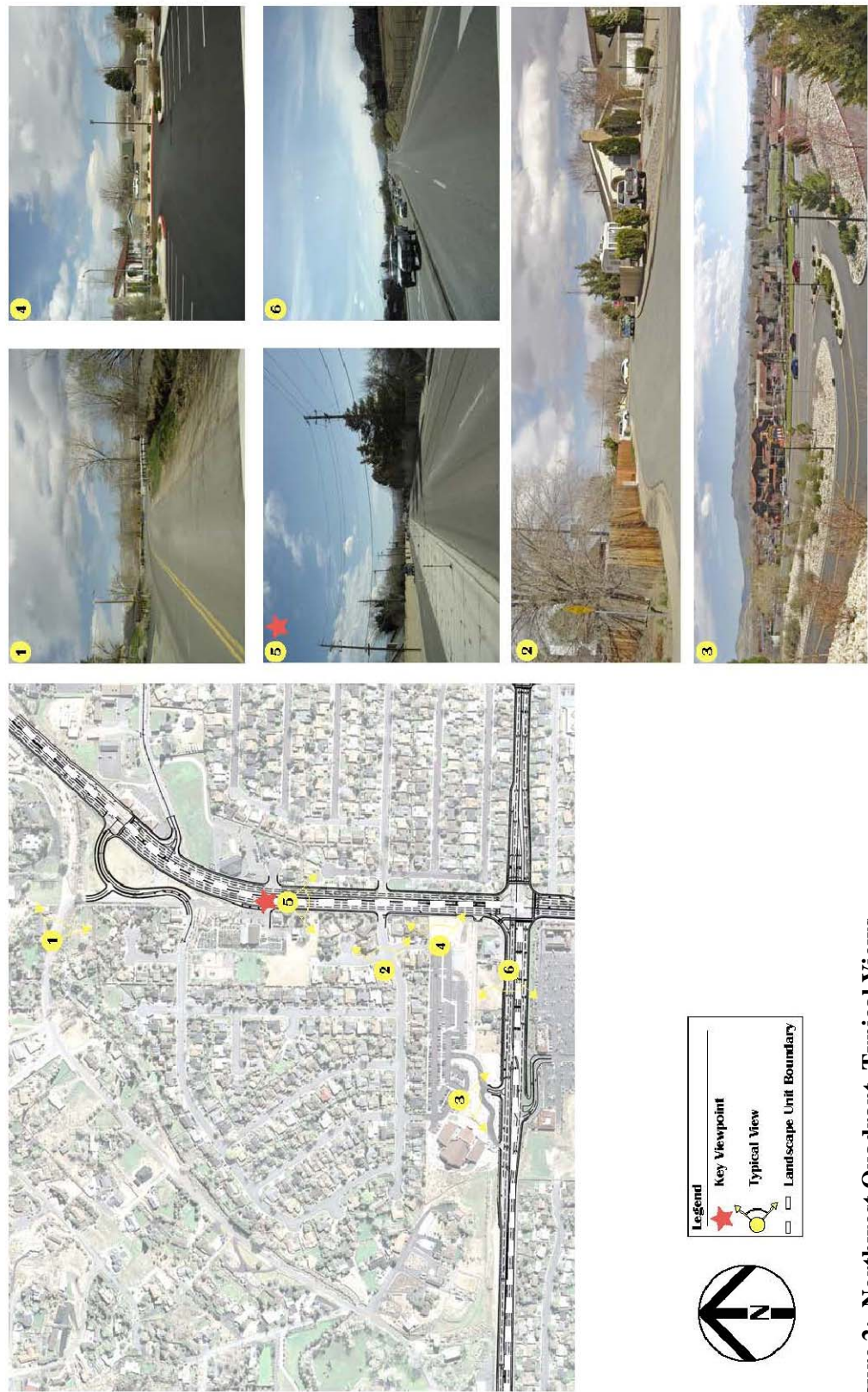
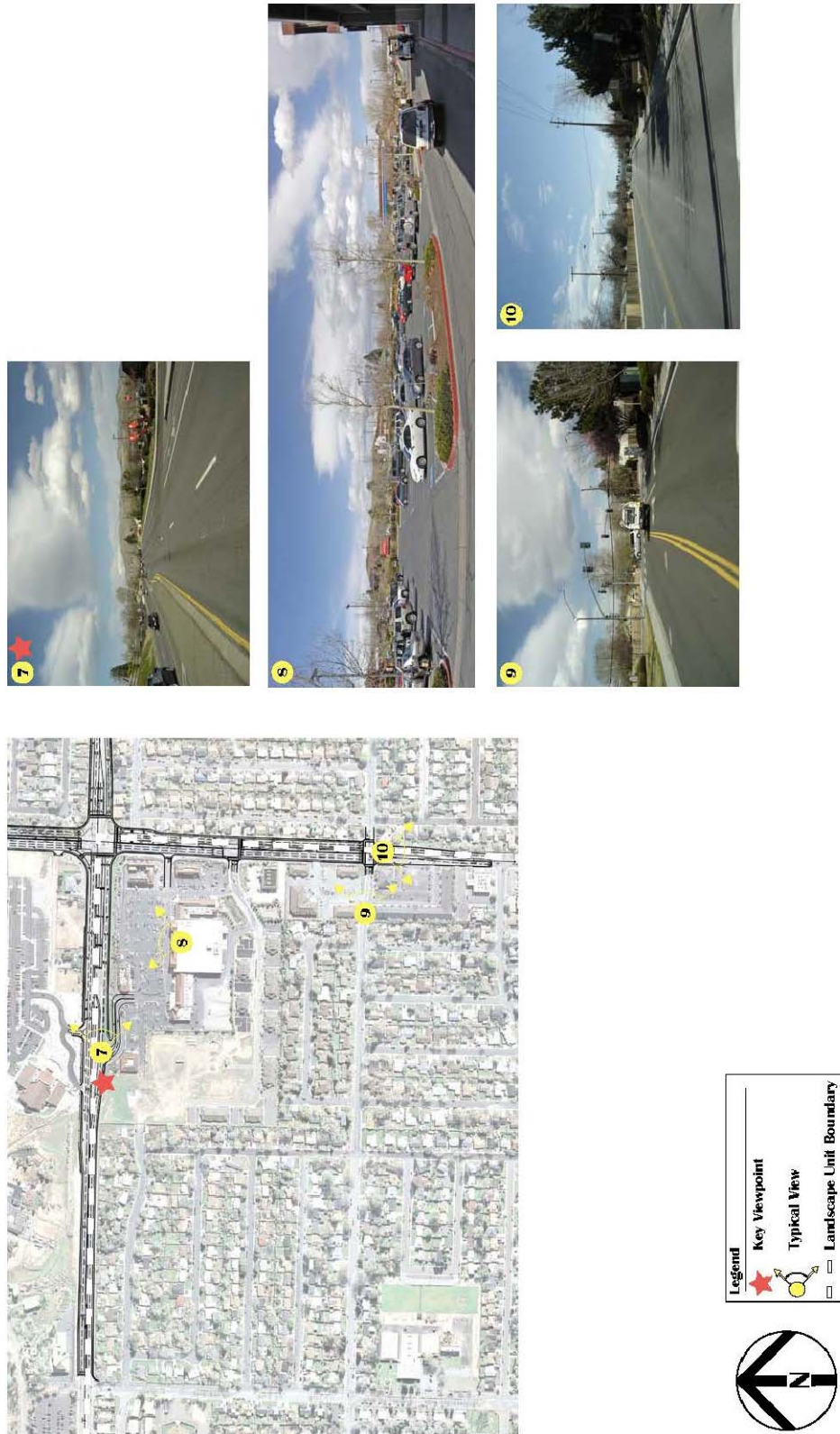


Figure 2: Northwest Quadrant, Typical Views





Figure 4: Southeast Quadrant, Typical Views



for any one individual to be in more than one group depending on time of day or location, such as a resident and a highway traveler; however, the experience of each would be different (i.e., viewing the project while traveling on the highway would be different for a resident than viewing it from the front porch of his or her house).

2.3.1 Commuters

Daily commuters may have an increased awareness of views from the road due to the amount of time they are exposed to the corridor each day. With congested traffic, the length of time to notice changes increases and drivers have a longer time to focus their attention on the roadway elements. When traveling at posted speeds, these drivers tend to focus on long- to mid-range views straight ahead. Passengers tend to have more time to observe views and a wider range of views than do drivers. Both Pyramid Way and McCarran Blvd are heavy commuter routes. The current traffic causes longer delays to traffic, affording the drivers longer view periods to the surrounding areas.

2.3.2 Community Residents

There are many residents that live adjacent to the project roadways. Some of these homes directly face onto the roads, giving the residents fore to mid-ground views of the corridor; however, most of the existing homes back onto the roadway corridors and have concrete block walls or wood fences that screen views to the corridors. Residents can be expected to have a high concern about the project and its effect on views from their homes and neighborhoods. These views from the highway would be expected to be of short duration. For the majority of the two roadway corridors where there is existing residential, the homes back up to the roadway corridors with a fence or project wall separating the roads from the residents. One notable exception is in the area of Mercy Court where the homes facing the street combined with the shortness of Mercy Court, effectively face homes onto Pyramid Way.

2.3.3 Church and Commercial Area Attendees, Patrons, and Employees

There are potentially hundreds of viewers per day with short-duration views into the project corridor from the church and business parking lots along the corridor. These views would be fore to mid-ground views, and they are partially obscured by the landscape plantings in some locations, especially at the Sparks Mercantile Center in the southwest quadrant of the intersection.

The views for employees and customers of the business along the corridor are most likely short in duration. These viewers would have a moderate to low awareness of the project. The principle concern is likely to be obstruction of views to the businesses from the roadway travelers.

2.3.4 Local Street Users

Because the speed of travel of these viewer groups is much slower than that of the two highways in the study area, it can be expected that they would have a greater awareness of changes to the visual environment than the highway users. Views to the corridor would move from back and mid-ground views to foreground views as drivers near the project corridor from neighborhood roads.

3.0 ENVIRONMENTAL CONSEQUENCES

The following analysis provides a description of any substantial impacts. Following this is an analysis of impacts associated for the project. Chapter 4 provides an analysis of the key viewpoints identified within the corridor. This analysis of key viewpoints provides a simulation showing the anticipated visual environment, as well as a summary that quantifies the anticipated effect of the changes on the key viewpoint.

3.1 Changes to the Visual Environment

Most of the proposed changes to the intersection area are related to the widening of the two roadways and inclusion of a triple left-turn lane from eastbound McCarran Boulevard to northbound Pyramid Way. The residences that back up to Pyramid Way, both north and south of the intersection, would be removed because the roadway widening generally occurs in that direction. Residences along the north and south sides of McCarran Boulevard, east of the interchange would also be removed. .

In addition to the new paving required in the locations where the existing residences are to be removed, a sidewalk/pathway within a landscaped area is proposed. The concepts being explored include either a sound wall, a series of landscape berms, or privacy fencing within this landscape area. Preliminary images of these from a community presentation can be seen in Appendix A. The net effect of the inclusion of this landscape area would be to provide a visual buffer to the remaining homes in the neighborhoods that would now front the two main roadways (i.e., across the existing local streets).

From the perspective of the traveler on Pyramid Way and McCarran Boulevard, the amount of visible landscape would be greatly increased by the addition of this landscaped sidewalk/pathway. The corridors have very limited landscaping to soften the existing walls and fences that back up to the right-of-way. Most of the existing landscape occurs in association with the commercial areas, including the Sparks Mercantile Center and the commercial areas near Queen Way.

Changes to the visual environment for each of the four quadrants are discussed below:

3.1.1 Northwest Quadrant

In general, views for the northwest quadrant are anticipated to be similar to the existing. For properties adjacent to the two roadways in the northwest quadrant of the project area, the right-of-way takes are anticipated to be minimal; therefore, the change in visual character and quality of this quadrant is anticipated to be limited. Exceptions to this are located at the northern edge of this quadrant along Pyramid Way where Queen Way is to be reconfigured. Views in the area of the reconfigured Queen Way would be similar in character, but different in content, due to the new road alignment. The new alignment would also move the roadway away from the homes on Lagomarsino Court.

Along McCarran Boulevard in the vicinity of Immaculate Conception Catholic Church entrance/exit, retaining walls are anticipated. These would be located immediately behind the sidewalk, but they are anticipated to be less than 3 feet in height.

3.1.2 Southwest Quadrant

Similar to the northwest quadrant, the southwest quadrant has limited proposed right-of-way takes, so from the point of view of the businesses along Pyramid Way and McCarran Boulevard, the views would be similar to the existing.

3.1.3 Southeast Quadrant

Within the southeast quadrant of the intersection, homes that back onto Pyramid Way, from south of York Way all the way north to the intersection with McCarran Boulevard, and along McCarran Boulevard in the area of the intersection, would be removed for the project. Remaining residents along Nelson Way (across the street from removed residences) would have a change to the visual character of their neighborhood streetscape. Depending on the landscape approach finally selected, the views would be to a park-like setting with a wall, a fence, or landscape berms separating the neighborhood from Pyramid Way. Depending on the final design, these residents might have views out onto Pyramid Way, but this would depend on many factors, such as wall/fence/berm height, planting densities, or breaks for access.

3.1.4 Northeast Quadrant

Similar to the southeast quadrant, homes currently backing onto the right-of-way, along both Pyramid Way north of the intersection and McCarran Boulevard east of the intersection, would be removed for the project. In these locations, landscape plantings, in combination with berms, walls, or fencing, would be located in their place. Homes that currently face onto existing homes would instead see a park-like setting. The ultimate design of this area would be developed as part of final design for the project.

3.1.5 Roadway Users

Residents, commuters, and others traveling either on Pyramid Way or McCarran Boulevard would likely notice the change in character of the roadways. Both would appear wider to the traveler on the road. In the case of Pyramid Way, removal of the residences and the wall along the east side of the roadway, coupled with the addition of landscape, would likely be a positive departure from the existing visual character and quality.

3.2 Glare

The existing roadways are well lit with street lighting. The proposed project is not anticipated to change the existing lighted conditions or add a new source of light or glare.

4.0 Key Viewpoints

The findings presented in this study are based on review of the entire length of the project and its surroundings. The project is assessed from stationary locations, as well as from dynamic viewpoints such as moving vehicles, pedestrians, and bicyclists; however, because it is not possible to analyze every conceivable view within the project area, the FHWA analysis methodology recommends selecting many key viewpoints that represent the potential visual effects of the project and the viewers' experience. The key viewpoints include a representation of critical visual elements of the proposed project and viewer group types. Descriptions of the key viewpoints are provided below.

The post-construction simulations shown for the key viewpoints on the following pages include application of best management practices (BMPs) and avoidance and minimization measures, to the extent feasible for each particular view. The most noticeable measures shown in the simulations are listed below:

- Applying architectural detailing to the retaining walls and noise barriers, including textures, colors, and patterns;
- Saving and protecting as much existing vegetation as feasible;
- Including new landscaping where feasible;
- Using cut-off and shielded light fixtures; and
- Including street trees in the new plantings.

The following views might potentially be affected by the project. Aesthetic treatments shown on structures and specific plant types in the simulations are representative only. Actual types of treatments and landscaping would be determined in final design. The three key viewpoints within the project area are described below:

- **Key Viewpoint #5:** The photograph was taken on southbound Pyramid Way, looking towards the intersection with McCarran Boulevard. This viewpoint was selected as key because it presents the changes to Pyramid Way north of the intersection including removal of existing residences along the east side of the roadway and the addition of a landscape area.
- **Key Viewpoint #7:** This image was taken from the eastbound lanes of McCarran Boulevard, looking east towards the intersection. The viewpoint was selected to illustrate the anticipated changes along McCarran Boulevard, including the wider pavement section and the retaining walls.
- **Key Viewpoint #12:** This photograph was taken on Gregory Way looking westward to the project area. The viewpoint was selected to show the anticipated impacts to the neighborhood from removal of the homes that back up to the project roadways.

For each key viewpoint that is rendered, there is descriptive text of the orientation, existing visual character/quality, proposed project features, anticipated changes to the visual environment, anticipated viewer response, and the resulting visual impact anticipated in each view. This is followed by the rendered simulations. Lastly, two tables are provided to summarize the anticipated impacts. The first table quantifies the anticipated impacts by using a numerical analysis that corresponds to the low, moderately

low, moderate, moderately high, and high ratings identified below. The second table summarizes the overall anticipated impact to the view.

4.1 Key Viewpoint 5

Orientation: The orientation of the view is to the south along Pyramid Way. The view is from the perspective of the driver.

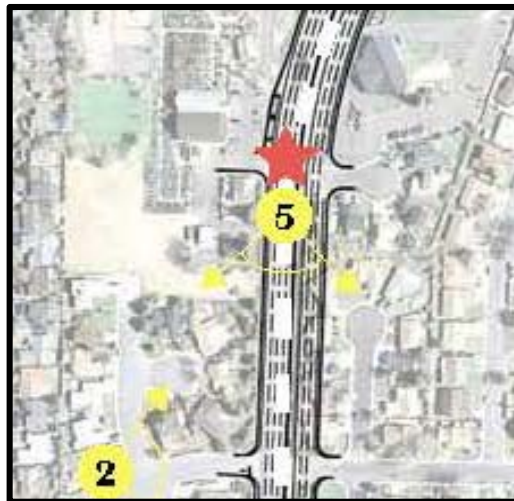
Existing Visual Character/Quality: The foreground elements include the roadway paving and the paved median. The neighborhood wall around the northeastern neighborhood quadrant can be seen on the left side of the photo. The visual quality of the view is considered moderately low with moderately low vividness, intactness, and unity. Detracting elements include the wall-to-wall paving and the utility poles and lines. The vegetation in the backyards helps to soften these elements.

Proposed Project Features: The roadway paving on Pyramid Way would greatly increase. The number of southbound lanes would increase to four and the northbound lanes to three. The median would shift to the east to accommodate the new southbound lanes. The existing wall and residences along the east side of the roadway would be removed and landscaping installed. Landscaping in the median is also assumed. Utilities in the area would be undergrounded as part of the work.

Changes to Visual Character: From the perspective of the traveler on the roadway, the roadway would appear much wider, but the addition of a landscaped median and the landscaped trail along the east side would help to soften the additional hard surfaces created by the paving.

Anticipated Viewer Response: Because this view is consistent along long stretches of the roadway within the project area, it is anticipated that the view of the changes would last for several seconds to minutes depending on the amount of traffic. Viewer sensitivity would be expected to be moderate for commuters on the roadway, but residents who frequent the corridor could be anticipated to have a higher initial sensitivity due to their familiarity with the corridor. This sensitivity may decrease with the passage of time.

Resulting Visual Impact: For the southbound traveler on Pyramid Way, the changes to the visual environment that would be most noticeable would be the new median, especially if this is landscaped, and the widened pavement section/additional travel lanes. In terms of the visual quality in the view, the vividness may actually increase due to the anticipated new landscaping associated with the project. Overall changes to the visual quality are anticipated to be low, with moderately low vividness, intactness, and unity. The overall changes to the visual character are anticipated to be low as well. The resulting visual impact is anticipated to be moderately low, with low changes to the visual resources of the view and with a moderate viewer response. Table 4.1-2 shows the anticipated summary of visual impacts.



**Figure 6: Key Viewpoint 5
Location and Orientation**



Figure 7: Key Viewpoint 5, Southbound Pyramid Way Looking to the South

The existing view, seen on top, and anticipated changes (bottom). Minimization measures depicted include landscape plantings in the median and along the east side of the street. For this view, it was assumed that a soundwall or privacy fence would be constructed within the landscaped area. Aesthetics treatments to structures and specific plant types are representative only. Actual types of treatments and landscaping would be based on community input.

Table 4.1-1 Key Viewpoint #5				
Anticipated Changes in Visual Character and Quality, and the Effect on Viewers				
	ATTRIBUTE	RATINGS ⁷		REMARKS (Anticipated changes are shown in the highlighted rows)
		EXISTING CONDITION	PROPOSED CONDITION ⁵	
VISUAL QUALITY ¹	Vividness/Memorability	2.25	2.10	
	Intactness	2.00	1.85	
	Unity	1.95	1.85	
	TOTAL ⁶	2.07	1.93	Percent Change = 6.76% = Low Change
VISUAL CHARACTER ²	Scale	1.75	1.50	
	Diversity	2.25	2.10	
	Continuity	2.00	2.00	
	Dominance	2.00	1.85	
	TOTAL ⁶	2.00	1.86	Percent Change = 7.00% = Low Change
VIEWER EXPOSURE ³	Location of Views	2.50		
	Number of Viewers	3.10		
	Duration of Views	2.10		
	TOTAL ⁶	2.57		Moderate Exposure
VIEWER SENSITIVITY ⁴	Attention of Viewer	3.75		
	Viewer Awareness	3.00		
	Local Values and Goals	2.80		
	TOTAL ⁶	3.18		Moderate Sensitivity
1 – Vividness = memorable, striking (5) to plain (1); Intactness = free of encroaching elements (5) to cluttered/lacking integrity (1); and Unity = coherent/harmonious (5) to disjointed/jarring (1). A rating below 1 would only be used for an extremely low rating.				
2 – Scale = small (5) to monumental (1); Diversity = complex (5) to monolithic (1); Continuity = harmonious (5) to dissonant (1); and Dominance = balanced (5) to prominent/unbalanced (1). A rating below 1 would only be used for an extremely low rating.				
3 – Location = foreground (5) to distant views (1); Number = over 100,000 (5) to 20 or less (1); Duration = over 4 hours (5) to less than 1 minute (1). A rating below 1 would only be used for an extremely low rating.				
4 – Activity = attention on views (5) to attention focused away (1); Awareness = High (5) to Low (1); and Values = High (5) to Low expectations (1). A rating below 1 would only be used for an extremely low rating.				
5 – Proposed (postconstruction condition) with avoidance and minimization measures in place.				
6 – Total = sum of attributes divided by number of attributes – e.g., Overall Visual Quality = (vividness+intactness+unity)/3.				
7 – Ratings: 1 = Low, 4 = Moderate, 5 = High				

The information from Table 4.1-1 on the anticipated changes to the visual environment is carried forward to Table 4.1-2, as shown in the light blue column:

Table 4.1-2 Key Viewpoint #5 Analysis Summary				
VISUAL RESOURCE (Stimulus)	CHANGE TO VISUAL CHARACTER	Low	RESOURCE CHANGE	VISUAL IMPACT <

4.2 Key Viewpoint 7

Orientation: The photograph is taken on eastbound McCarran Boulevard, west of the Pyramid Way/McCarran Boulevard intersection. The view is from the perspective of the traveler on McCarran Boulevard.

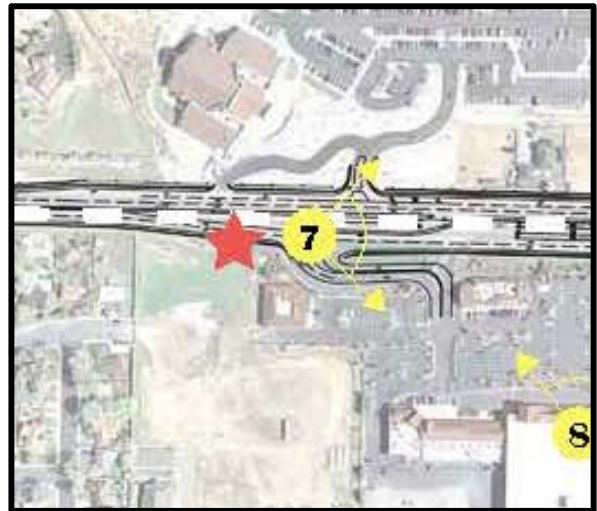
Existing Visual Character/Quality: The foreground elements include the roadway paving and the paved median. The landscaping associated with the Sparks Mercantile Center can be seen on the right side of the image. The visual quality of the view is considered moderately low, with moderately low vividness, intactness, and unity.

Proposed Project Features: The most prominent feature would be the widened pavement section at the intersection with the triple left-turn lanes. On the left, the existing slope would be replaced by a retaining wall with a landscaped area above the wall. The houses on the east side of the intersection would be removed, and the wall/landscaping would be visible as a mid-ground element.

Changes to Visual Character: From the perspective of the traveler on the roadway, the roadway would appear much wider, but the addition of a landscaped median would help to soften the additional hard surfaces created by the paving. The retaining wall allows for an opportunity to incorporate forms and textures to create a unique imagery or artwork.

Anticipated Viewer Response: The widening along McCarran Boulevard generally occurs at the intersection, so it would be seen for a duration of several seconds for those passing through with a green light, to longer for those stopped at a red light. Viewer sensitivity would be expected to be moderate for commuters on the roadway, but residents who frequent the corridor could be anticipated to have a higher initial sensitivity due to their familiarity with the corridor. This sensitivity may decrease over time.

Resulting Visual Impact: For the eastbound traveler on McCarran Boulevard, the changes to the visual environment that would be most noticeable would be the new median, especially if this is landscaped, and the widened pavement section. In terms of the visual quality in the view, the vividness may increase due to the anticipated new landscaping associated with the project. Overall changes to the visual quality are anticipated to be low, with moderate vividness, and moderately low intactness and unity. The overall changes to the visual character are anticipated to be low as well. The resulting visual impact is anticipated to be moderately low, with low changes to the visual resources of the view and with a moderate viewer response. See Table 4.2-2 for the anticipated summary of visual impacts.



**Figure 8: Key Viewpoint 7
Location and Orientation**



Figure 9: Key Viewpoint 7, Eastbound McCarran Boulevard, Looking to the East

The top image is the existing view. Minimization measures depicted include landscape plantings in the median and along the south side (right side of the image) of the street. Aesthetics treatments to structures and specific plant types are representative only. Actual types of treatments and landscaping would be based on community input.

Table 4.2-1 Key Viewpoint #7 Anticipated Changes in Visual Character and Quality, and the Effect on Viewers				
	ATTRIBUTE	RATINGS ⁷		REMARKS (Anticipated changes are shown in the highlighted rows)
		EXISTING CONDITION	PROPOSED CONDITION ⁵	
VISUAL QUALITY ¹	Vividness/Memorability	2.48	2.75	
	Intactness	2.32	2.32	
	Unity	2.25	2.20	
	TOTAL ⁶	2.35	2.42	Percent Change = 3% = Low Change
VISUAL CHARACTER ²	Scale	2.50	2.39	
	Diversity	2.75	2.57	
	Continuity	2.50	2.22	
	Dominance	2.52	2.45	
	TOTAL ⁶	2.57	2.41	Percent Change = 6.23% = Low Change
VIEWER EXPOSURE ³	Location of Views	2.54		
	Number of Viewers	3.25		
	Duration of Views	2.42		
	TOTAL ⁶	2.74		Moderate Exposure
VIEWER SENSITIVITY ⁴	Attention of Viewer	3.75		
	Viewer Awareness	2.75		
	Local Values and Goals	2.80		
	TOTAL ⁶	3.10		Moderate Sensitivity
1 – Vividness = memorable, striking (5) to plain (1); Intactness = free of encroaching elements (5) to cluttered/lacking integrity (1); and Unity = coherent/harmonious (5) to disjointed/jarring (1). A rating below 1 would only be used for an extremely low rating. 2 – Scale = small (5) to monumental (1); Diversity = complex (5) to monolithic (1); Continuity = harmonious (5) to dissonant (1); and Dominance = balanced (5) to prominent/unbalanced (1). A rating below 1 would only be used for an extremely low rating. 3 – Location = foreground (5) to distant views (1); Number = over 100,000 (5) to 20 or less (1); Duration = over 4 hours (5) to less than 1 minute (1). A rating below 1 would only be used for an extremely low rating. 4 – Activity = attention on views (5) to attention focused away (1); Awareness = High (5) to Low (1); and Values = High (5) to Low expectations (1). A rating below 1 would only be used for an extremely low rating. 5 – Proposed (postconstruction condition) with avoidance and minimization measures in place. Avoidance and minimization measures are described in Section 7 of this report. 6 – Total = sum of attributes divided by number of attributes – e.g., Overall Visual Quality = (vividness+intactness+unity)/3. 7 – Ratings: 1 = Low, 4 = Moderate, 5 = High				

The information from Table 4.2-1 on the anticipated changes to the visual environment is carried forward to Table 4.2-2, as shown in the light blue column:

VISUAL RESOURCE (Stimulus)	CHANGE TO VISUAL CHARACTER	Low	RESOURCE CHANGE	VISUAL IMPACT
	CHANGE TO VISUAL QUALITY	Low	Low	
VIEWER (Response)	VIEWER EXPOSURE	Moderate	VIEWER RESPONSE	
	VIEWER SENSITIVITY	Moderate	Moderate	
				Moderately Low

Ratings for each category were determined by taking the percent change rating from the previous table and averaging these for the Resource Change/Viewer Response columns. These two ratings were then averaged again to determine the anticipated Visual Impact. If unable to average, the higher rating was used.

4.3 Key Viewpoint 12

The changes to the existing views within the southeast quadrant of the intersection are anticipated to be similar to those shown in Key Viewpoint 12 described below. In both locations, the removal of the row of houses that back on to Pyramid Way and the placement of buffering, by walls, planting or a combination of these elements, will create a similar change to the visual environment of the neighborhood.

Orientation: The view is from the perspective of the residents. The view is taken along Gregory Way looking to the west towards the proposed removed residences.

Existing Visual Character/Quality: The character of this view is one of a typical single-family residential development. In general, the streets are narrow with on-street parking, and the mature trees help to soften the yards of the homes. The overall visual quality is considered moderate, with moderate vividness, moderately high intactness, and moderate unity.

Proposed Project Features: From the neighborhood's perspective, removal of the first row of homes (those that back onto the Pyramid Way right-of-way) and the placement of landscape features would be a noticeable change to the existing view. In this case, the homes in the background would be replaced by landscaping, combined with soundwalls, berming, or decorative fencing.



**Figure 10: Key Viewpoint 12
Location and Orientation**

Changes to Visual Character: For the most of the homes in the neighborhoods, the changes to the visual character would be minor and would be noticed only at the entry or exit of the neighborhood. For homes that would now face towards the project, a landscaped area would be seen in place of the homes that currently fill the view. The elements to be included in this anticipated park-like setting would depend on final design; however, it is likely to include trees combined with groundplane treatments, such as grass, groundcovers, or gravelscapes, and a screening element such as a berm, fence, or wall.

Anticipated Viewer Response: For residents that would face into the new landscape areas, the views would be substantially changed. Because the duration of the views would be long term, viewer sensitivity would be moderately high.

Resulting Visual Impact: For residents on streets perpendicular to the row of houses removed by the project, views would be anticipated to stay similar to the existing. The greatest changes would be either coming or going, where there would be views to the changes. For residents across from the removed houses, the view would substantially change. In place of homes and gardens, there would be a landscape buffer with a barrier element, such as a fence, wall, or landscape berm. It is feasible that these homes would also have some views into the improvements on Pyramid Way, depending on the locations of the barriers and landscape. Overall changes to the visual quality for this view are anticipated to be low, with a resulting moderate vividness and unity, and moderately high intactness. The overall changes to the visual character are anticipated to be low as well. The resulting visual impact is anticipated to be moderate and driven by the sensitivity of the viewer. Table 4.3-2 shows the anticipated summary of visual impacts.



Figure 11: Key Viewpoint 12, Gregory Way Looking to the West

The existing image can be found at the top with the simulated image found below. Minimization measures depicted include landscape plantings where the residences are removed. For this view, it was assumed that a soundwall or privacy fence would be constructed within the landscaped area. Aesthetics treatments to structures and specific plant types are representative only. Actual types of treatments and landscaping would be based on community input.

Table 4.3-1 Key Viewpoint #12 Anticipated Changes in Visual Character and Quality, and the Effect on Viewers				
	ATTRIBUTE	RATINGS ⁷		REMARKS (Anticipated changes are shown in the highlighted rows)
		EXISTING CONDITION	PROPOSED CONDITION ⁵	
VISUAL QUALITY ¹	Vividness/Memorability	3.00	2.85	
	Intactness	3.62	3.52	
	Unity	3.10	3.10	
	TOTAL ⁶	3.24	3.16	Percent Change = 2.47% = Low Change
VISUAL CHARACTER ²	Scale	3.00	2.95	
	Diversity	3.10	3.00	
	Continuity	3.25	3.00	
	Dominance	3.20	3.00	
	TOTAL ⁶	3.14	2.99	Percent Change = 4.78% = Low Change
VIEWER EXPOSURE ³	Location of Views	3.25		
	Number of Viewers	2.25		
	Duration of Views	4.50		
	TOTAL ⁶	3.33		Moderate Exposure
VIEWER SENSITIVITY ⁴	Attention of Viewer	3.75		
	Viewer Awareness	3.85		
	Local Values and Goals	3.00		
	TOTAL ⁶	3.53		Moderately High Sensitivity
1 – Vividness = memorable, striking (5) to plain (1); Intactness = free of encroaching elements (5) to cluttered/lacking integrity (1); and Unity = coherent/harmonious (5) to disjointed/jarring (1). A rating below 1 would only be used for an extremely low rating. 2 – Scale = small (5) to monumental (1); Diversity = complex (5) to monolithic (1); Continuity = harmonious (5) to dissonant (1); and Dominance = balanced (5) to prominent/unbalanced (1). A rating below 1 would only be used for an extremely low rating. 3 – Location = foreground (5) to distant views (1); Number = over 100,000 (5) to 20 or less (1); Duration = over 4 hours (5) to less than 1 minute (1). A rating below 1 would only be used for an extremely low rating. 4 – Activity = attention on views (5) to attention focused away (1); Awareness = High (5) to Low (1); and Values = High (5) to Low expectations (1). A rating below 1 would only be used for an extremely low rating. 5 – Proposed (postconstruction condition) with avoidance and minimization measures in place. Avoidance and minimization measures are described in Section 7 of this report. 6 – Total = sum of attributes divided by number of attributes – e.g., Overall Visual Quality = (vividness+intactness+unity)/3. 7 – Ratings: 1 = Low, 4 = Moderate, 5 = High				

The information from Table 4.3-1 on the anticipated changes to the visual environment is carried forward to Table 4.3-2, as shown in the light blue column:

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4.4 Summary of Key Viewpoints

Table 4.4-1 provides a summary of each key viewpoint's analysis for the anticipated change to the visual environment, the anticipated viewer response to that change, and the overall anticipated visual impact for each alternative.

Table 4.4-1 Summary of Anticipated Visual Impacts by Key Viewpoint and Alternative			
KEY VIEWPOINT	ANTICIPATED CHANGE TO VISUAL RESOURCE	ANTICIPATED VIEWER RESPONSE	ANTICIPATED VISUAL IMPACT
BUILD ALTERNATIVE			
Key Viewpoint #5	Low	Moderate	Moderately Low
Key Viewpoint #7	Low	Moderate	Moderately Low
Key Viewpoint #12	Low	Moderately High	Moderate

5.0 PROPOSED AVOIDANCE AND MINIMIZATION MEASURES

To address the potential adverse visual impacts to the project corridor area and community concerns over the addition of the project elements visually within the community, the following actions are recommended:

5.1 Visual Measures

5.1.1 Measures for Project Aesthetic Guidelines

Use Context Sensitive Solution (CSS) methods to ensure a consistent approach to the design of the aesthetics along the roadways. The plan would supplement the mitigation measures described herein by developing more detailed architectural and landscape mitigation concepts. They would reflect comments by interested community groups, city staff members, regulatory agencies, and the project development team.

Measures for Corridor Design Guidelines	
Measure	VA-1: Work with the community during preliminary design to develop Context Sensitive Solutions for the project improvements through a formalized structure that allows for community input. VA-2: Conduct at least one public meeting during design development to allow for community input.
Responsible Party	Regional Transportation Commission of Washoe County (RTC)

5.1.2 Measures for Noise Barriers

New noise barriers may be constructed as part of the improvements. In addition to limiting the sound that travels out from the corridor, they also block views into and out from the adjacent roadways.

Areas for landscaping are limited in some locations. In these areas, a design goal can be to create greater visual interest in the wall itself through the inclusion of pilasters and other architectural elements, such as texture and color applications. If replanting is possible, such as on the east side of Pyramid Way where extensive area will be available, plantings can help soften the presence of the wall and reduce the “canyon effect” where there are walls on both sides of the highway.

The preferable option is to allow enough setback space between the edge of shoulder and the wall to allow for trees and other plantings in front of the wall. If not enough room exists to allow for this, planting types and locations can be adjusted. Regardless of plantings, added articulation and interest in the wall would help increase the visual quality of the project area.

Measures for Noise Barriers	
Measure	VA-3: Beginning with preliminary design and continuing through final design and construction, develop construction plans that apply architectural detailing to the noise barriers, including textures, colors, and patterns. Include caps that would provide shadow lines, as developed through the CSS process.
Responsible Party	Regional Transportation Commission of Washoe County (RTC)

5.1.3 Measures for Stormwater Treatment Facilities

The requirements for stormwater treatment may conflict with the requirements for landscaping. For corridors like Pyramid Way and McCarran Boulevard, where paving dominates the landscape, the limited remaining areas must meet landscape as well as stormwater treatment requirements. In designing the water quality treatment BMPs, the location and appearance of the treatment facilities must be considered. The design and placement of any BMPs for the proposed project shall be designed and reviewed to work with the projects aesthetics and landscape designs as part of Measure VA-1.

Measures for Stormwater Treatment Facilities	
Measure	<p>VA-4: Beginning with preliminary design and continuing through final design and construction, use drainage and water quality elements, where required, that maximize the allowable landscape.</p> <p>VA-5: Design basins, if required, so that they appear to be a natural landscape feature such as a dry streambed or a riparian pool. They shall be shaped in an informal, curvilinear manner.</p> <p>VA-6: Employ grading design of any ponds or swales that are sympathetic to the aesthetic and landscape design.</p> <p>VA-7: Locate any maintenance access drives in unobtrusive areas away from local streets. Such drives must consist of inert materials or herbaceous groundcover that is visually compatible with the surrounding landscape.</p>

Measures for Stormwater Treatment Facilities (Cont.)	
Measure	<p>VA-8: Design any required basins without chain-link perimeter fencing.</p> <p>VA-9: Design all visible concrete structures and surfaces to adhere with appropriate elements, including architectural detailing to the soundwalls such as textures, colors, and patterns, and caps that would provide shadow lines.</p> <p>VA-10: Design rock slope protection to consist of aesthetically pleasing whole material with a variety of sizes.</p> <p>VA-11: Limit the use of bioswales within corridor landscape areas. If they must be used, locate them in non-obtrusive areas and designed to appear as natural features.</p>
Responsible Party	Regional Transportation Commission of Washoe County (RTC)

6.0 SOURCES

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3. Nevada Department of Transportation. July 3, 2002. Pattern and Palette of Place: A Landscape Master Plan for the Nevada State Highway System.
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7.0 APPENDIX A

Pyramid Way and McCarran Boulevard Intersection Improvement Project – Preliminary Landscape Concepts



